

Quick Start Guide

MS-820 Industrial Bar Code Scanner

This guide is designed to get your scanner up and running quickly. When connected to a host computer with Windows operating system (98 or above), you can use **ESP** (Easy Setup Program) to configure and control your **MS-820 Industrial Bar Code Scanner**. In addition to **ESP**, you can send commands to your scanner by serial command and by the scanner's embedded menus.

For a full explanation of the **MS-820**'s commands and features, refer to the **Help** section of **ESP** or contact your Microscan sales representative for the **MS-820 Industrial Bar Code Scanner User's Manual**, available in digital and print formats.

MICROSCAN

Step 1 – Check Required Hardware

Caution: If using your own power supply, be certain that it is wired correctly and supply voltage is 10 to 28VDC. Incorrect wiring or voltage can cause software or equipment failures.

If connecting to a host with an IB-131 Interface Box, you will need the following:

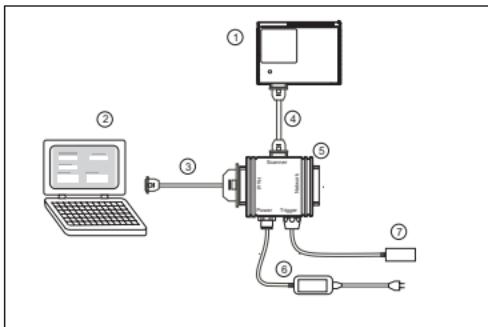
Item ^a	Part Number	Description
1	FIS-0820-XXXXG	MS-820 Industrial Bar Code Scanner
2		A Host Computer ^b
3	61-300026-03	DB-25 Null modem configuration cable plug to DB-9 socket, 6ft. ^c or a 25-pin cable to the 25-pin port
4	98-000014-02	IB-131 Interface Box kit including configuration cable
5	61-000011-02	Null Modem Configuration Cable
6	97-100004-15 (90-264 VAC, 24VDC)	Power Supply
7	99-000017-01	Optional Object Detector

- a. See "Connect the System" on page 3 for diagram of system.
- b. With either a terminal communications program or Microscan's ESP which runs on Windows 98 or higher.
- c. If using another host cable, make certain that it does not have RTS/CTS connected to the host.

Step 2 – Connect the System

Caution: Be certain all cables are connected **BEFORE** applying power. Always power down **BEFORE** disconnecting cables.

1. Connect the scanner (1) to the IB-131 Interface Box (4) using the supplied cable (5).
2. If making up your own cable, make certain that you connect transmit pins to receive pins.
3. Connect the IB-131 (4) at the "HOST" 25-pin connector to the computer (2) via a null modem cable (3).¹
4. Connect the power supply (6) to the IB-131's POWER connector.
5. Connect power to the system.



Hardware Configuration

1. When wiring the **IB-131** to a **Host Computer** that has a 25-pin connector, cross pins 2 and 3. When wiring the **IB-131** to a **Host Computer** that has a 9-pin connector, do NOT cross pins 2 and 3.

Step 3 – Install **ESP**

(**ESP** stands for *Easy Setup Program*.)

With your scanner connected to a host computer with Windows operating system (98 or above), you can use **ESP** for configuration and control.

If downloading from your “Microscan Tools” CD:

1. Insert your “Microscan Tools” CD in your computer’s CD drive.
2. Choose **ESP Software** from the main menu.
3. Launch **Setup.exe** under **ESP** and follow the prompts.

If downloading from the web:

1. Go to <http://www.microscan.com/downloadcenter/>
2. Create a new “myMicroscan” member account or, if you are already a member, enter your user name and password.
3. Click the **Download Software** link and extract the latest version of **ESP** to a directory of your choice. *Note where your **ESP.exe** file is stored on your hard drive.*
4. At the end of the install process, the following icon should appear on your desktop:

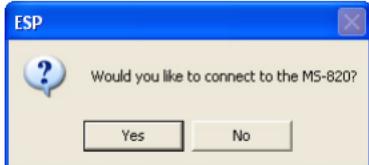
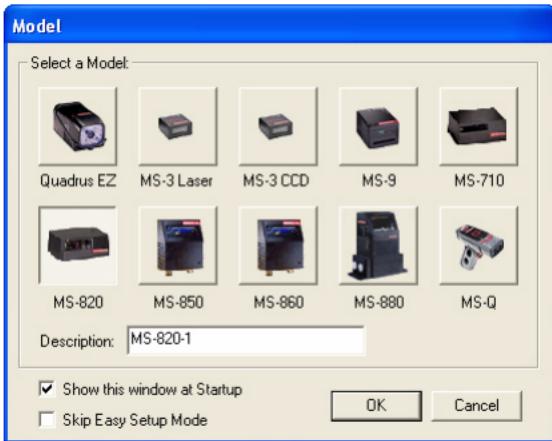


5. Click the **ESP** icon to start the program.

Step 4 – Select Scanner Model in *ESP*

When you start the program, the following menu will appear:

1. In the **Model** dialog box, select your model. If you do not want to make this selection every time you load **ESP**, uncheck “Show this window at Startup”.
2. Select the default name (**MS-820-1**, for example) or type in a file name of your choice and click **OK**.
3. Click **Yes** when the following dialog box appears:



Note: If you need to select another model later, you can find it in **App Mode** under **Model** on the menu bar.

Step 5 – Autoconnect

1. In the **Connecting...** dialog, if your communications port is not the default **COM1**, use the pull down arrow to change your communications port.



2. Click the **Start** button.

When connected, the scanner's settings will be loaded into ESP and the **CONNECTED** message will appear in a green box in the status bar at the bottom right of your screen.



3. If the connection fails, enable a different **Com Port**, check connections, and try again.

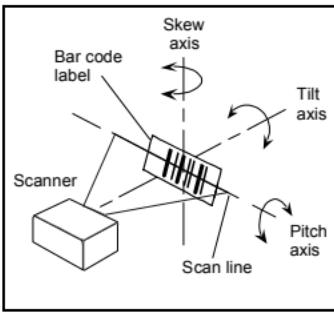
Tip: If you do not see the **CONNECTED** or **DISCONNECTED** message at the bottom of your dialog, try expanding the **ESP** window horizontally.

Step 6 – Position Symbol and Scanner

1. Set up a symbol at the scanning distance you will be using in your application.

Note: If using an I 2/5 symbol, verify that the number of characters in the symbol being scanned matches the symbol length enabled for the I 2/5 symbol type (default is 10 and 6).

2. Avoid bright light or IR light from other sources, including other readers.
3. Pitch the symbol or reader at a minimum of $\pm 15^\circ$ to avoid specular reflection (the return of direct, non-diffused light).



Scanner and symbol positioning

Note: **Code 39** is the default symbol type enabled. If you are uncertain as to your symbology type, enable all symbologies by selecting the **Auto Discriminate** macro in **Terminal** mode.

Step 7 – Test for Read Rate

If you don't have a test symbol, print out this page and use the symbol here for testing. With this test you can learn the percentage of decodes per images captured by observing the active LEDs (20% through 100%) on the top of the scanner.



Code 39 Test Symbol

You can also find test symbols packaged with your Microscan Tools CD.

By ESP

After connecting to the reader, **ESP** will open in **Setup Mode**.

1. Click the **Test** button in **Setup Mode** to begin the read rate test.
2. Follow the instructions on the **Setup Mode** screen.
3. To end the read rate test, click the **Stop** button.

Test

Note: If the reader is in the default **Continuous Read** mode, it will read and beep repeatedly as long as a readable symbol remains in the read range, and as long as the Read Cycle configuration has not changed.

By Serial Command

Send a **<C>** to begin the read rate test.

Send a **<J>** to end the read rate test.

Step 8 – Configure the Scanner

By ESP

To change reader settings, or to access the **Utilities** or **Terminal** window, click the **App Mode** button.



To return to **Setup Mode**, click the **Setup Mode** button.



By Serial Command

From your terminal program or the **Terminal** screen in **ESP**, you can enter serial commands and configuration and utility commands.

Note: You can learn the current setting of any parameter by inserting a question mark after the number, as in **<K100?>**. To see all **K commands**, send **<K?>**.

